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NOTES ON A COLLECTION OF SPIDERS FROM MONTANA

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The following paper is based for the most part on a collection of spiders from western Montana. By far the greater part of the material has been collected during the past few years in and near Hamilton in Ravalli County. More than a hundred species are represented, most of them new records for Montana from which state we have as yet few records of spiders. All collections unless otherwise credited were made by William L. Jellison. Many of the species are boreal forms which are distributed across the northern United States and in Canada and which follow down the mountain ranges of the east and the west. Twenty-five species are also characteristic forms of the Palearctic region. Three species are diagnosed as new and are described herein, the types being deposited in The American Museum of Natural History. In addition, a new name is proposed for *Micaria constricta* Emerton, a combination preoccupied by L. Koch in 1876 (Zeitschrift d. Ferdinand, Heft 19, p. 251).

The bulk of the material has been deposited in the collections of the Rocky Mountain Laboratory of the U. S. Public Health Service at Hamilton, Montana, representative specimens and the types being retained at the American Museum.

MYGALOMORPHAE

Ctenizidae

Antrodiaetus hageni (Chamberlin)

Brachybothrium hageni CHAMBERLIN, 1917; Bull. Mus. Comp. Zoöl., LXI, p. 74, Pl. v, fig. 9.

RAVALLI COUNTY: Lick Creek, June 17, 1930, female (Glen M. Kohls).

A male and female from Moscow Mountains, Moscow, Idaho, June, 1936 (C. B. Philip), seem to represent the same species as the female from Ravalli County but they are identified only tentatively with the above specific name. It should be noted that the more familiar generic name *Brachybothrium* of Simon must fall to *Antrodiaetus* Ausserer.

Dipluridae

Hexura picea Simon

Hexura picea SIMON, 1884, Bull. Soc. Zool. France, LX, p. 316.

MINERAL COUNTY: February, 1936, several immature examples.

ARACHNOMORPHAE

Pholcidae

Pholcophora americana Banks

Pholcophora americana BANKS, 1893, Trans. American Ent. Soc., XXIII, p. 57.

RAVALLI COUNTY: Hamilton, May 20, 1934, female. Clay Banks, July, 1934, female.—FLATHEAD COUNTY: LaSalle, May and June, 1934, two males and four females (Charles Jellison, Jr.).

Dictynidae

Dictyna vincens Chamberlin

Dictyna vincens CHAMBERLIN, 1919, Ann. Ent. Soc. America, XII, p. 243, Pl. xv, figs. 1 and 2.

RAVALLI COUNTY: Moose Lake, Aug. 9, 1934, male and immature specimens.

Dictyna volucripes Keyserling

Dictyna volucripes KEYSERLING, 1881, Verh. Zool.-Bot. Gesell. Wien, XXXI, p. 286, Pl. xi, fig. 11.

RAVALLI COUNTY: May, 1934, female. Gird's Creek, Aug. 26, 1934, one male, six females.

Dictyna arundinaceoides Keyserling

Dictyna arundinaceoides KEYSERLING, 1883, Verh. Zool.-Bot. Gesell. Wien, XXXIII, p. 665, Pl. xxi, fig. 14.

RAVALLI COUNTY: Mill Creek Canyon, May 13, 1934, female. Gird's Creek, April 19, 1934, female.

Micryphantidae

Erigone dentosa Cambridge

Erigone dentosa CAMBRIDGE, 1894, Biol. Centr. Amer., Araneidea, I, p. 128, Pl. XVI, fig. 1.

RAVALLI COUNTY: Hamilton, April 20, 1937, male.

Amaurobiidae

Titanoeca americana Emerton

Titanoeca americana EMERTON, 1888, Trans. Connecticut Acad. Arts and Sci., VII, p. 453, Pl. X, fig. 4.

RAVALLI COUNTY: West Fork, March 11, 1934, two females. May, 1934, female.—MEAGHER COUNTY: Ringling, April 28, 1934, immature female.

Amaurobius nomeus Chamberlin

Amaurobius nomeus CHAMBERLIN, 1919, Ann. Ent. Soc. America, XII, p. 240, Pl. XIV, figs. 1 and 2.

RAVALLI COUNTY: Moose Lake, May 6, 1934, female. Skalkaho Divide, July 15, 1934, immature female. Gird's Creek, Aug. 26, 1934, female.—FLATHEAD COUNTY: LaSalle, August, 1934, female (Charles Jellison, Jr.).

Agelenidae

Tegenaria derhami (Scopoli)

Aranea derhami SCOPOLI, 1763, Entomologia Carniolica exhib. Ins. Carn. indig., p. 400.

RAVALLI COUNTY: Hamilton, Aug. 22, 1931, male; April 6, 1934, female; April 8, 1934, female (A. Whitcomb); June, 1934, male and female (Claire Ertel).

Agelenopsis utahanus (Chamberlin and Ivie)

Agelena utahana CHAMBERLIN AND IVIE, 1933, Bull. Univ. Utah, XXIII, p. 43, Pl. XI, figs. 113–115.

RAVALLI COUNTY: June 6, 1931, female.— FLATHEAD COUNTY: Flathead Lake, Sept. 2, 1934, three females.

Cicurina robusta Simon

Cicurina robusta SIMON, 1886, C. R. Soc. Ent. Belgique, XXX, p. lx.

RAVALLI COUNTY: West Fork, June 10, 1934, female.

Cicurina intermedia Chamberlin and Ivie

Cicurina intermedia CHAMBERLIN AND IVIE, 1933, Bull. Univ. Utah, XXIII, p. 46, Pl. XI, figs. 116–118.

RAVALLI COUNTY: Moose Lake, March 25, 1934, female.

Cicurina gertschi Exline

Cicurina gertschi EXLINE, 1936, American Mus. Novit., No. 850, p. 17, fig. 22.

RAVALLI COUNTY: Larch Creek, April 8, 1934, female holotype.

Cicurina idahoana Chamberlin

Cicurina idahoana CHAMBERLIN, 1919, Ann. Ent. Soc. America, XII, p. 258, Pl. XIX, fig. 10.

RAVALLI COUNTY: October, 1934, female. Moose Lake, March 25, 1934, immature female. Burch Creek, April 8, 1934, female. Gird's Creek, Aug. 26, 1934, immature female.

Cicurina simplex Simon

Cicurina simplex SIMON, 1886, C. R. Soc. Ent. Belgique, XXX, p. lix.

RAVALLI COUNTY: Moose Lake, March 25, 1934, male and female. Clay Banks, May 23, 1934, female.

Oxyopidae

Oxyopes rufipes Banks

Oxyopes rufipes BANKS, 1893, Journ. New York Ent. Soc., I, p. 133.

RAVALLI COUNTY: West Fork, March 11, 1934, young female. Blodgett Mountain, May 21, 1934, immature male. Moose Lake, May 6, 1934, two females. Medicine Springs, June 13, 1934, male. Lake Como, Jan. 10, 1935, female. Burch Creek, May 30, 1934, immature male.—MEAGHER COUNTY: Ringling, April 30, 1934, female.

Lycosidae

Pardosa moesta Banks

Pardosa moesta BANKS, 1892, Proc. Acad. Nat. Sci. Philadelphia, p. 70, Pl. III, fig. 44.

RAVALLI COUNTY: May 26, 1934, female.

Pardosa groenlandica (Thorell)

Lycosa groenlandica Thorell, 1892, Ofvers. K. Vet. Akad. Forh., XXIX, p. 157.

Ravalli County: Trappers Mountain, July 19, 1931, female; July 26, 1933, two males, immature females. Lake Como, July 29, 1933, female. Roaring Lion Creek, Aug. 27, 1933, female. Moose Lake, March 25, 1934, male. West Fork, March 11, 1934, young female. Clay Banks, March 31, 1934, immature male. Skalkaho Dam, April 10, 1934, male and female. June, 1934, three females (Claire Ertel).—Missoula County: O'Brien Canyon, March 9, 1934, immature male.

Pardosa coloradensis Banks

Pardosa coloradensis Banks, 1894, Journ. New York Ent. Soc., II, p. 51.

Ravalli County: Skalkaho Canyon, March 10, 1934, six males and females. March, 1934, female.

Pardosa wyuta Gertsch

Pardosa wyuta Gertsch, 1934, American Mus. Novit., No. 693, p. 7.

Ravalli County: Burch Creek, April 8, 1934, female. West Fork, June 10, 1934, male.

Pardosa distincta (Blackwall)

Lycosa distincta Blackwall, 1846, Ann. and Mag. Nat. Hist., XVII, p. 32.

Ravalli County: Moose Lake, March 25, 1934, young female.

Pardosa mackenziana (Keyserling)

Lycosa mackenziana Keyserling, 1876, Verh. Zool.-Bot. Gesell. Wien, XXVI, p. 621, Pl. I, fig. 7.

Ravalli County: Blodgett Canyon, June 7, 1931, female. West Fork, June 10, 1934, female.—Flathead County: May 20, 1931, two males.

Pardosa xerampelina (Keyserling)

Lycosa xerampelina Keyserling, 1876, Verh. Zool.-Bot. Gesell. Wien, XXVI, p. 622, Pl. I, fig. 8.

Ravalli County: Sleeping Child Canyon, June 10, 1931, two females. Hamilton, May 28, 1931, immature female. Blodgett Canyon, June 7, 1931, female. May 30, 1931, female.

Pardosa sternalis (Thorell)

Lycosa sternalis Thorell, 1877, Bull. U. S. Geol. Survey, III, p. 504.

Ravalli County: West Fork, June 10, 1934, two females.

Trochosa frondicola (Emerton)

Lycosa frondicola Emerton, 1885, Trans. Connecticut Acad. Arts and Sci., VI, p. 484, Pl. XLVI, fig. 3.

Meagher County: Ringling, April 28, 1934, female; April 30, 1934, two females.

Schizocosa avida (Walckenaer)

Lycosa avida Walckenaer, 1837, Ins. Apt., I, p. 322.

Ravalli County: Canyon Creek, March 31, 1934, male. Moose Lake, Aug. 8, 1934, female.

Tarentula kochi Keyserling

Tarentula kochi Keyserling, 1876, Verh. Zool.-Bot. Gesell. Wien, XXVI, p. 636, Pl. I, fig. 18.

Ravalli County: Willow Creek Ridge, May, 1934, female. October, 1934, female.

A female of this species was taken at Tower Falls Ranger Station, Yellowstone National Park, Wyoming, March 20, 1934, by Jellison.

Tarentula aculeata (Clerck)

Araneus aculeatus Clerck, 1757, Sv. Spindl., p. 87, Pl. IV, tab. 3.

Ravalli County: West Fork, June 10, 1934, immature female. Gird's Creek, Aug. 26, 1934, male and immature males. Blodgett Mountain, Aug. 14, 1934, female, immature male. May, 1934, male.

Arctosa alpigena (Doleschall)

Lycosa alpigena Doleschall, 1852, Sitzber. Akad. Wissenschaft Wien, IX.

Record.—A male of this species was taken at Sunrise Camp, Ranier Park, Washington, June 20, 1934, by Jellison.

Theridiidae

Enoplognatha mimoides (Chamberlin)

Lithyphantes mimoides Chamberlin, 1920, Pomona College Journ. Ent. and Zool., XII, p. 8, Pl. III, fig. 4.

Flathead County: LaSalle, May and June, 1934, male (Charles Jellison, Jr.).

Lithyphantes albomaculatus (De Geer)

Aranea albomaculata De Geer, 1778, Mem. pour servir a l'hist. des Insectes, VII, p. 257, Pl. xv, figs. 2–4.

Lithyphantes corollatus Linnaeus of recent authors.

Flathead County: LaSalle, May and June, 1934, male (Charles Jellison, Jr.).

Steatoda hespera Chamberlin and Ivie

Steatoda hespera Chamberlin and Ivie, 1933, Bull. Univ. Utah, XXIII, p. 9, Pl. I, figs. 4–6.

Ravalli County: Hamilton, Aug. 14, 1933, female (G. M. Kohls); Jan. 22, 1934, young female; Aug. 31, 1934, two males. Clay Banks, Aug. 20, 1933, male, female and immature specimens. August, 1934, female; July 23, 1934, female (C. B. Philip).—Prairie County: Fallon, Aug. 7, 1934, female from ground squirrel burrow (C. B. Philip).

Latrodectus mactans (Fabricius)

Aranea mactans Fabricius, 1775, Ent. Syst., II, p. 410, No. 11.

Ravalli County: Hamilton, July 24, 1932, female; July 10, 1932, female; Jan. 1, 1934, female (C. B. Philip). Willow Creek, July 1, 1933, female. Gird's Creek, Aug. 19, 1934, female.—Custer County: Miles City, Aug. 30, 1933, female (Winter); 1934, four females.—Big Horn County: Hardin, Aug. 18, 1934, immature males and females (C. B. Philip).

Theridion tepidariorum Koch

Theridion tepidariorum Koch, 1841, Die Arachniden, VIII, p. 75, Figs. 647 and 648.

Ravalli County: Hamilton, Sept. 4, 1934, female.

Theridion sexpunctatum Emerton

Theridion sexpunctatum Emerton, 1882, Trans. Connecticut Acad. Arts and Sci., VI, p. 12, Pl. II, fig. 5.

Ravalli County: Gird's Creek, Aug. 26, 1934, female.

Linyphiidae

Stemonyphantes lineatus (Linnaeus)

Aranea lineata Linnaeus, 1758, Syst. Nat., 10 Ed., I, p. 620.

Meagher County: Ringling, April 28, 1934, female.

Lephthyphantes nebulosus (Sundevall)

Linyphia nebulosa Sundevall, 1830, Svens. Spindl., p. 218.

Ravalli County: Feb. 22, 1932, male. Hamilton, Aug. 31, 1934, female.

Bathyphantes nigrinus (Westring)

Linyphia nigrina Westring, 1861, Aran. Svec., p. 132.

Ravalli County: Tucker Bridge, March 8, 1934, female. Gird's Creek, Aug. 26, 1934, female.

Pityohyphantes phrygiana (C. Koch)

Linyphia phrygiana Koch, 1836, Die Arachniden, III, p. 83, Figs. 229 and 230.

Ravalli County: May 30, 1931, female; February, 1934, young male. Moose Lake, March 25, 1934, four males, five females; May 6, 1934, female; August, 1934, two females. Blodgett Mountain, May 6, 1934, female. Skalkaho Dam, April 10, 1934, four females. Lake Como, April 23, 1934, male and female in copulation (C. B. Philip).—Flathead County: LaSalle, March, 1934, young females (Charles Jellison, Jr.).

Linyphia litigiosa Keyserling

Linyphia litigiosa Keyserling, 1886, Die Spinnen Amerikas, Theridiidae, II, p. 62, Pl. xii, Fig. 166.

Ravalli County: Blodgett Mountain, April 21, 1934, immature males and females. Gird's Creek, Aug. 26, 1934, immature males, mature females.—Flathead County: Flathead Lake, Sept. 2, 1934, three females.

Linyphia marginata Koch

Linyphia marginata Koch, 1834, Herr.-Schaeff. Deutsch. Ins., Heft 127, p. 21.

Ravalli County: May, 1934, two young females. Lake Como, Aug. 4, 1934, two females.

Frontinella communis (Hentz)

Linyphia communis Hentz, 1850, Journ. Boston Soc. Nat. Hist., p. 28, Pl. IV, fig. 4.

Ravalli County: Camp Creek, July 3, 1933, two females.

Labulla jellisoni Gertsch and Ivie

Labulla jellisoni Gertsch and Ivie, 1936, American Mus. Novitates, No. 858, p. 18, Figs. 37 and 38.

RAVALLI COUNTY: Blodgett Canyon, April 21, 1933, female holotype. West Fork, March 11, 1934, female paratype. A female of this species was taken in the Moscow Mountains, Moscow, Idaho, in June, 1936, by C. B. Philip.

Argiopidae

Pachygnatha furcillata Keyserling

Pachygnatha furcillata KEYSERLING, 1883, Verh. Zool.-Bot. Gesell. Wien, XXXIII, p. 662, Pl. XVI, fig. 11.

RAVALLI COUNTY: Hamilton, Sept. 23, 1934, males and females (B. Thrailkill).

Tetragnatha extensa (Linnaeus)

Aranea extensa LINNAEUS, 1758, Syst. Nat., 10 Ed., I, p. 621.

RAVALLI COUNTY: Hamilton, June 25, 1932, female. Sleeping Child Canyon, June 10, 1931, two females. Camp Creek, July 3, 1933, one male, four females. Moose Lake, March 25, 1934, female; May 25, 1934, female; May 27, 1934, female; May 6, 1934, male, female. Canyon Creek, May 23, 1934, female (C. B. Philip); May 7, 1934, female. Gird's Creek, April 19, 1934, two females. Lake Como, Aug. 4, 1934, male and female. Skalkaho Dam, April 10, 1934, females and immature males.—MEAGHER COUNTY: Ringling, April 30, 1934, female.

Tetragnatha laboriosa (Hentz)

Tetragnatha laboriosa HENTZ, 1850, Journ. Boston Soc. Nat. Hist., VI, p. 27, Pl. IV, fig. 3.

RAVALLI COUNTY: Moose Lake, May 6, 1934, two males. Gird's Creek, June 3, 1934, two females.

Zygiella montana (Koch)

Zilla montana KOCH, 1834, Herrich-Schaeffer Deutsch. Ins., p. 125.

RAVALLI COUNTY: Moose Lake, Aug. 9, 1934, three young females.

Argiope trifasciata (Forskal)

Aranea trifasciata FORSKAL, 1775, Descript. Anim., p. 86.

BIG HORN COUNTY: Hardin, Aug. 18, 1934, female (C. B. Philip).

Metepeira foxi Gertsch and Ivie

Metepeira foxi GERTSCH AND IVIE, 1936, American Mus. Novitates, No. 858, p. 20, Figs. 42–44.

RAVALLI COUNTY: Willow Creek Ridge, May, 1934, female. Hamilton, May 2, 1934, male. Gird's Creek, April 19, 1934, six immature males and females. Lake Como, Aug. 4, 1934, young female.—BEAVERHEAD COUNTY: June, 1937, female.

Eustala anastera (Walckenaer)

Epeira anastera WALCKENAER, 1837, Ins. Apt., II, p. 33.

RAVALLI COUNTY: Moose Lake, May 6, 1934, two males, one female.

Cyclosa conica (Pallas)

Aranea conica PALLAS, 1772, Spicil. Zool., p. 48, Pl. I, fig. 16.

RAVALLI COUNTY: June 6, 1931, female. University Heights, April 23, 1934, male (C. B. Philip). Lake Como, January, 1935, male.

Aranea silvatica (Emerton)

Epeira silvatica EMERTON, 1884, Trans. Connecticut Acad. Arts and Sci., VI, p. 300, Pl. XXXIII, fig. 13, Pl. XXXV, figs. 1, 4–6.

RAVALLI COUNTY: Gird's Creek, Aug. 26, 1934, male.

Aranea gemmoides Chamberlin and Ivie

Aranea gemmoides CHAMBERLIN AND IVIE, 1935, Bull. Univ. Utah, XXVI, p. 22, Pl. X, fig. 81.

RAVALLI COUNTY: Hamilton, Jan. 17, 1930, male, five females; Feb. 2, 1934, female; May 20, 1934, young female (C. B. Philip); March, 1934, young female; July, 1934, female (G. M. Kohls); Aug. 20, 1934, female. University Heights, April 23, 1934, young female. May 29, 1931, female; Jan. 4, 1931, female.

Aranea displicata (Hentz)

Epeira displicata HENTZ, 1847, Journ. Boston Soc. Nat. Hist., V, p. 476, Pl. XXXI, fig. 17.

RAVALLI COUNTY: Tucker Bridge, March 8, 1934, female.—FLATHEAD COUNTY: LaSalle, August, 1934, male (Charles Jellison, Jr.).

Aranea carbonaria (Koch)

Epeira carbonaria L. Koch, 1869, Beitr. Kennt. Ar. Tyrols, p. 168.

Ravalli County: Camp Creek, July 3, 1933, female. University Heights, April 23, 1934, female (C. B. Philip).

Aranea dumetorum (Villers)

Aranea dumetorum Villers, 1789, Caroli Linnaei Entomologica, IV, p. 126.

Araneus patagiatus Clerck, 1757, Aran. Svec., p. 38, Pl. I, fig. 10.

Ravalli County: Lake Como, June 29, 1933, female; Aug. 4, 1934, young female. Mill Creek Canyon, May 13, 1934, female. Moose Lake, May 6, 1934, male and four females; May 27, 1934, two females. University Heights, April 23, 1934, four females (C. B. Philip). Roaring Lion Creek, May 6, 1934, female. Skalkaho Dam, April 10, 1934, seven females and immature specimens.

Thomisidae

Thanatus formicinus (Olivier)

Aranea formicina Olivier, 1789, Encycl. Meth., IV, p. 226.

Thanatus lycosoides Emerton, 1892, Trans. Connecticut Acad. Arts and Sci., VIII, p. 379, Pl. xxxii, fig. 6.

Ravalli County: Clay Banks, March 3, 1934, male. Willow Creek Ridge, May, 1934, young female. Roaring Lion Creek, June 23, 1935, female. October, 1934, young male.

Thanatus walteri Gertsch

Thanatus walteri Gertsch, 1933, American Mus. Novitates, No. 636, p. 6, Figs. 6 and 47.

Ravalli County: Hamilton, March 25, 1934, female.

Tibellus oblongus (Walckenaer)

Aranea oblonga Walckenaer, 1802, Faune Parisienne, II, p. 228.

Ravalli County: Clay Banks, July 1934, male. Hamilton, April 6, 1934, female. Roaring Lion Creek, June 23, 1935, two females.

Apollophanes texanus Banks

Apollophanes texanus Banks, 1904, Journ. New York Ent. Soc., XII, p. 133, Pl. v, fig. 12; Pl. vi, fig. 20.

Meagher County: Ringling, April 30, 1934, female.

Philodromus alascensis Keyserling

Philodromus alascensis Keyserling, 1883, Verh. Zool.-Bot. Gesell. Wien, XXXIII, p. 674, Pl. xxi, fig. 22.

Ravalli County: Hamilton, April 20, 1934, female; March 1, 1934, young female; Feb. 9, 1934, male; March 20, 1936, male; April 6, 1934, two males. Moose Lake, March 25, 1934, two males. Canyon Creek, March 31, 1934, two males.—Beaverhead County: Dillon, July 30, 1936, female.

Philodromus virescens Thorell

Philodromus virescens Thorell, 1877, Bull. U. S. Geol. Survey, III, p. 500.

Ravalli County: Mill Creek Canyon, May 13, 1934, female.

Philodromus pacificus Banks

Philodromus pacificus Banks, 1898, Canadian Entomologist, XXX, p. 187.

Ravalli County: Moose Lake, May 27, 1934, female.

Philodromus expositus Keyserling

Philodromus expositus Keyserling, 1880, Die Spinnen Amerikas, Laterigradae, p. 220, Pl. v, fig. 121.

Ravalli County: March, 1934, young female. Hamilton, Aug. 29, 1933, female; June 16, 1931, two males and two females.—Flathead County: LaSalle, March, 1934, two young females (Charles Jellison, Jr.); May and June, 1934, male, young females (Charles Jellison, Jr.).

A female of this species was collected at Blue Nose Peak, Lemhi County, Idaho, Aug. 13, 1933, by Jellison.

Philodromus aureolus (Olivier)

Aranea aureola Olivier, 1789, Encycl. Meth., IV, p. 226.

Ravalli County: Gird's Creek, June 3, 1934, two males. Moose Lake, May 6, 1934, young female.

Philodromus rodecki, new species

Figures 4, 5 and 6

MALE.—Total length, 4.00 mm.

	Length	Width
CARAPACE	2.08 mm.	2.05 mm.
FRONT	0.60	0.75
STERNUM	1.10	1.00
LABIUM	0.22	0.30
MAXILLA	0.40	0.30
ABDOMEN	2.00	1.50

General appearance and structure as in *Philodromus aureolus* (Olivier). Carapace rusty reddish brown on the sides, without contrasting markings; medially with a longitudinal pale band which begins at the first eye row and includes the ocular area, is somewhat invaded by brown streaks, but continues sharply caudad to the posterior declivity where the width is half that of the second eye row. Integument of the carapace clothed with inconspicuous pale hairs which are most numerous on the lateral margins. Sternum, coxae and mouth parts a paler yellowish brown, inconspicuously maculate with very small brown spots. Legs dark brown, almost concolorous with the sides of the carapace, the clothing black hairs and spines. Abdomen rusty brown.

Carapace suborbicular in outline as seen from above, low and flat, highest at the posterior declivity but essentially equal in height throughout, the sides moderately convex. First row of eyes recurved as seen from in front, the medians separated by more than a diameter (12/16), nearer the subequal laterals (12/10). Second row of eyes recurved, the medians separated by about three diameters, two diameters from the slightly larger laterals. Median ocular quadrangle broader than long (57/47), narrowed in front (50/49), the anterior eyes larger. Clypeus equal in height to three times the diameter of an anterior median eye (12/38). Sternum broadly truncated in front, the anterior coxae widely separated by more than their length, the sides rounded, the posterior end narrowly truncated, the coxae separated by four-fifths their width.

First leg: femur, 2.80 mm., patella, 1.15 mm., tibia, 2.80 mm., metatarsus, 2.68 mm., and tarsus, 1.70 mm. long. Fourth leg: femur, 2.60 mm., patella, 0.80 mm., tibia, 2.20 mm., metatarsus, 2.20 mm., and tarsus, 1.15 mm. long. Spines beneath the first tibia, 2–2–2, beneath the first metatarsus, 2–2–0. Palpus as illustrated in figures 5 and 6.

FEMALE.—Total length, 5.25 mm. Color pattern in complete agreement with the male but the whole spider paler, not so sharply marked. Abdomen light rusty brown above, without a distinct pattern. Structure of female essentially as in the male. Carapace, 2.15 mm. long, 2.18 mm. wide. First leg: femur, 2.72 mm.; patella, 1.10 mm.; tibia, 2.35, mm.; metatarsus, 2.00 mm.; and tarsus, 1.40 mm. long. Epigynum as illustrated in figure 4.

TYPE LOCALITY.—Male holotype from Boulder, Colorado, 1933, collected by Mr. H. G. Rodeck. Female allotype from Hamilton, Ravalli County, Montana, July 5, 1935 (Glen M. Kohls).

This pretty species is closely allied to *Philodromus aureolus* in general structure but differs quite radically in the characters of the genitalia. The embolus of the male is much shorter and straighter and the small accessory spur near the ventral tibial apophysis of *aureolus* is lacking. The palpus of *rodecki* resembles closely that of *satullus* Keyserling but the color pattern is distinctive and the first leg is much longer.

Misumena calycina (Linnaeus)

Aranea calycina LINNAEUS, 1758, Systema Naturae, 10 Ed., I, p. 620.

Misumena vatia EMERTON, 1892, Trans. Connecticut Acad. Arts and Sci., VIII, p. 368, Pl. XXX, fig. 1.

RAVALLI COUNTY: Hamilton, July 7, 1933, female (G. M. Kohls). Gird's Creek, Aug. 26, 1934, immature males, mature females. Camp Creek, July 3, 1933, two males, three young females.

Misumenops celer (Hentz)

Thomisus celer HENTZ, 1847, Journ. Boston Soc. Nat. Hist., V, p. 446, Pl. XXIII, fig. 5.

RAVALLI COUNTY: Gird's Creek, June 3, 1934, two females. Hamilton, May 2, 1934, female. Canyon Creek, May 7, 1934, four young females.

Xysticus lutulentus Gertsch

Xysticus pulverulentus EMERTON, 1894, Trans. Connecticut Acad. Arts and Sci., IX, p. 417, Pl. IV. fig. 6.

Xysticus lutulentus GERTSCH, 1934, American Mus. Novitates, No. 707, p. 8, Fig. 9.

RAVALLI COUNTY: West Fork, June 10, 1934, male.

Xysticus punctatus Keyserling

Xysticus punctatus KEYSERLING, 1880, Die Spinnen Amerikas, Laterigradae p. 30, Pl. I, fig. 13.

RAVALLI COUNTY: Roaring Lion Creek, May 6, 1934, female.—FLATHEAD COUNTY: LaSalle, May and June, 1934, male (Charles Jellison, Jr.).

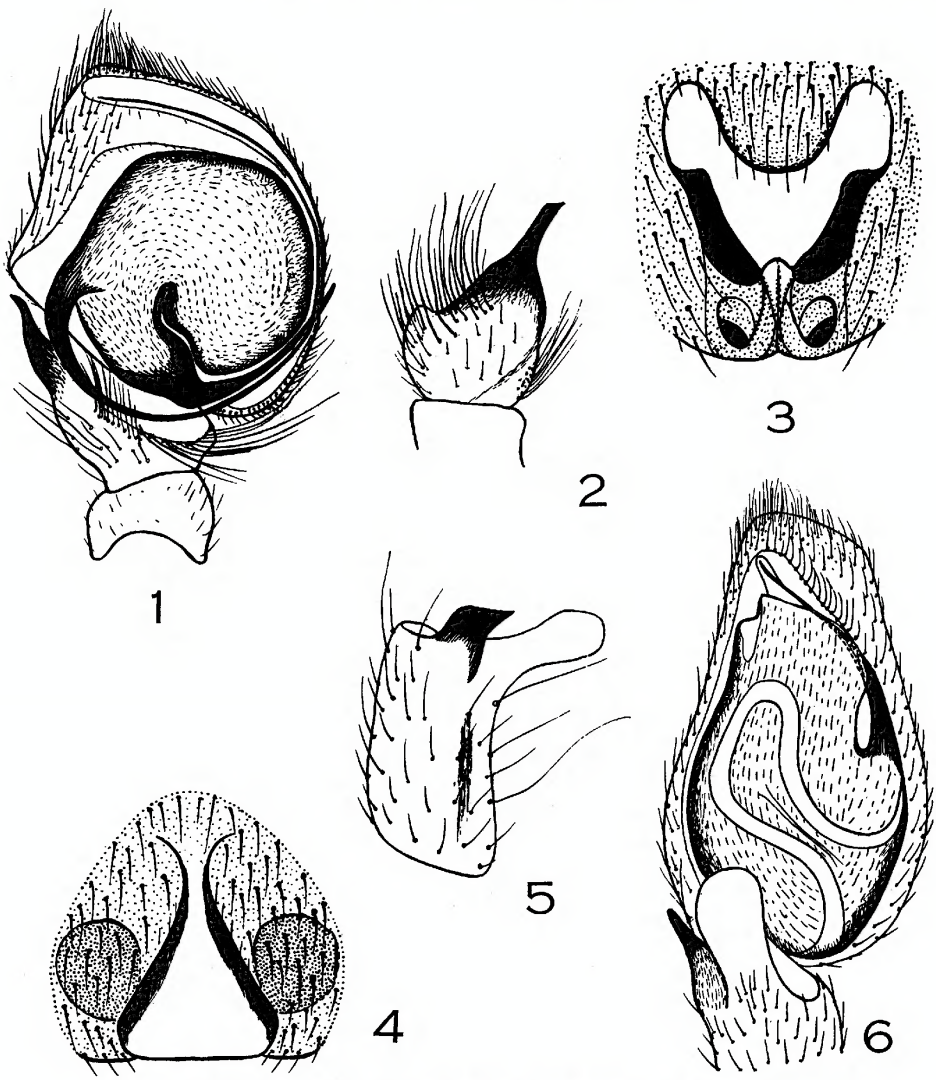

Fig. 1. *Pellenes philipi*, new species, right palpus of male, ventral view.
Fig. 2. Idem, tibia of right palpus of male, retrolateral view.
Fig. 3. *Clubiona kohlsi*, new species, epigynum of female.
Fig. 4. *Philodromus rodecki*, new species, epigynum of female.
Fig. 5. Idem, tibia of right palpus of male, retrolateral view.
Fig. 6. Idem, right palpus of male, ventral view.

Xysticus benefactor Keyserling

Xysticus benefactor KEYSERLING, 1880, Die Spinnen Amerikas, Laterigradae, p. 22, Pl. 1, fig. 8.

RAVALLI COUNTY: August, 1934, male. Gird's Creek, Aug. 26, 1934, young female. Moose Lake, May 6, 1934, female. Canyon Creek, May 7, 1934, male.

Xysticus emertoni Keyserling

Xysticus emertoni KEYSERLING, 1880, Die Spinnen Amerikas, Laterigradae, p. 39, Pl. 1, fig. 18.

RAVALLI COUNTY: Medicine Springs, June 29, 1933, female. Canyon Creek, May 23, 1934, male, female (C. B. Philip).—BEAVERHEAD COUNTY: Dillon, May 19, 1936, male.

Xysticus elegans Keyserling

Xysticus elegans KEYSERLING, 1880, Die Spinnen Amerikas, Laterigradae, p. 31, Pl. 1, fig. 14, not female.

RAVALLI COUNTY: Hamilton, 1937, female.

Xysticus ferox (Hentz)

Thomisus ferox HENTZ, 1847, Journ. Boston Soc. Nat. Hist., V, p. 445, Pl. XXIII, fig. 3.

RAVALLI COUNTY: Hamilton, June 15, 1934, male. Hamilton, May 20, 1934, male (C. B. Philip).

Xysticus locuples Keyserling

Xysticus locuples KEYSERLING, 1880, Die Spinnen Amerikas, Laterigradae, p. 24, Pl. I, fig. 9.

RAVALLI COUNTY: Hamilton, June 17, 1931, female (G. M. Kohls).

Xysticus gulosus Keyserling

Xysticus gulosus KEYSERLING, 1880, Die Spinnen Amerikas, Laterigradae, p. 43, Pl. I, fig. 21.

RAVALLI COUNTY: Blodgett Mountain, Aug. 14, 1934, young female.

Xysticus montanensis Keyserling

Xysticus montanensis KEYSERLING, 1887, Verh. Zool.-Bot. Gesell. Wien, XXXVII, p. 479, Pl. VI, fig. 40.

RAVALLI COUNTY: West Fork, June 10, 1934, male.—MEAGHER COUNTY: Ringling, April 30, 1934, female.

Xysticus cunctator Thorell

Xysticus cunctator THORELL, 1877, Bull. U. S. Geol. Survey, III, p. 494.

RAVALLI COUNTY: University Heights, April 23, 1934, female (C. B. Philip). Willow Creek Ridge, June 26, 1935, female. Roaring Lion Creek, June 23, 1935, male.

Coriarachne brunneipes Banks

Coriarachne brunneipes BANKS, 1893, Journ. New York Ent. Soc. I, p. 133.

RAVALLI COUNTY: West Fork, March 11, 1934, two young females.

Coriarachne utahensis (Gertsch)

Platyxysticus utahensis GERTSCH, 1932, American Mus. Novitates, No. 563, p. 5, Fig. 2.

RAVALLI COUNTY: Hamilton, April 29, 1934, female; April 23, 1934, male. Burch Creek, April 8, 1934, young female.—FLATHEAD COUNTY: LaSalle, May and June, 1934, male (Charles Jellison, Jr.).

Gnaphosidae

Gnaphosa muscorum (Koch)

Pythonissa muscorum L. KOCH, 1866, Die Arachnidenfamilie der Drassiden, p. 14, tab. 1, Figs. 9 and 10.

RAVALLI COUNTY: Gird's Creek, Feb. 7, 1934, female; April 19, 1934, female; Jan. 28, 1934, females, young males. Mill Creek Canyon, May 13, 1934, female. Burch Creek, April 8, 1934, female. Moose Lake, Aug. 9, 1934, female.—MEAGHER COUNTY: Ringling, April 28–30, 1934, four immature females.—PARK COUNTY: Game Ranch, Gardiner, March 21, 1934, young female.

Gnaphosa brumalis Thorell

Gnaphosa brumalis THORELL, 1875, Proc. Boston Soc. Nat. Hist., XVII, p. 497.

RAVALLI COUNTY: Gird's Creek, June 3, 1934, female.

Poecilochroa montana Emerton

Poecilochroa montana EMERTON, 1889, Trans. Connecticut Acad. Arts and Sci., VIII, p. 175, Pl. IV, fig. 2.

RAVALLI COUNTY: Clay Banks, Aug. 20, 1933, two young females. West Fork, March 11, 1934, four young males, females (Jellison). Gird's Creek, April 19, 1934, young female. Hamilton, April 10, young female. Tucker Bridge, March 8, 1934, young female. Blodgett Mountain, Aug. 14, 1934, female.

Herpyllus vasifer (Walckenaer)

Drassus vasifer WALCKENAER, 1805, Tabl. Aran., p. 46.

RAVALLI COUNTY: Blodgett Mountain, Aug. 14, 1934, female.

Orodrassus coloradensis (Emerton)

Drassus coloradensis EMERTON, 1877, Bull. U. S. Geol. Survey, III, p. 528.

RAVALLI COUNTY: West Fork, March 11, 1934, eight females. October, 1934, female.—FLATHEAD COUNTY: Flathead Lake, Sept. 3, 1934, male.

Drassodes neglectus (Keyserling)

Drassus neglectus KEYSERLING, 1887, Verh. Zool.-Bot. Gesell. Wien, XXXVII, p. 434, Pl. VI, fig. 10.

RAVALLI COUNTY: Canyon Creek, Nov. 14, 1935, two young females.—MEAGHER COUNTY: Ringling, April 28, 1934, eight males and females.—FLATHEAD COUNTY: LaSalle, May and June, 1934, two young females (Charles Jellison, Jr.).—BEAVERHEAD COUNTY: Dillon, June 15, 1936, female.

Zelotes puritanus Chamberlin

Zelotes puritanus CHAMBERLIN, 1922, Proc. Biol. Soc. Washington, XXXV, p. 164.

RAVALLI COUNTY: West Fork, June 10, 1934, female.

Zelotes subterraneus (Koch)

Melanophora subterranea C. KOCH, 1839, Die Arachniden, VI, p. 85, Pl. CCI, figs. 491 and 492.

RAVALLI COUNTY: Skalkaho Canyon, March 10, 1934, immature female. West Fork, March 11, 1934, young female. Willow Creek, May, 1934, one male, five females. Clay Banks, May 23, 1934, female. Canyon Creek, March 31, 1934, young female. Moose Lake, May 6, 1934, three females; Aug. 9, 1934, female; May 26, 1934, female (C. B. Philip).—FLATHEAD COUNTY: LaSalle, May and June, 1934, two young females (Charles Jellison, Jr.).

Haplodrassus signifer (Koch)

Drassus signifer C. L. KOCH, 1839, Die Arachniden, VI, p. 31, Pl. CLXXXVIII, fig. 452.

RAVALLI COUNTY: Willow Creek Ridge, May, 1934, female. Moose Lake, May 6, 1934, female.

Clubionidae

Clubiona moesta Banks

Clubiona moesta BANKS, 1893, Trans. American Ent. Soc., XXIII, p. 65.

Clubiona orinoma CHAMBERLIN, 1919, Ann. Ent. Soc. America, XII, p. 255, Pl. XIX, fig. 4.

BEAVERHEAD COUNTY: May, 1937, four females from magpie nest.

Clubiona abboti Koch

Clubiona abboti L. KOCH, 1866, Die Arachnidenfamilie der Drassiden, p. 303, Pl. XII, fig. 193.

RAVALLI COUNTY: Canyon Creek, May 23, 1934, female (C. B. Philip).

Clubiona kohlsi, new species

Figure 3

FEMALE.—Total length, 12.50 mm.

	Length	Width
CARAPACE	5.80mm.	4.00mm.
FRONT	0.80	2.75
STERNUM	3.00	1.75
LABIUM	1.00	0.70
MAXILLA	1.70	0.90
ABDOMEN	6.50	3.50

Coloration, structure and size in close agreement with *Clubiona tigrina* Cambridge. Integument of the carapace thinly covered with pale procumbent hairs and sparsely set with suberect black hairs or bristles which are longest and most robust in the ocular area. Carapace yellowish brown, the pars cephalica darker reddish brown, the eyes narrowly ringed with black. Chelicerae dark reddish brown, the frontal surfaces thickly set with long black bristles. Sternum yellowish brown, with dark colored sclerotic folds imperfectly forming a black marginal seam, clothed with pale hairs and erect black bristles. Labium and maxillae dark reddish brown to black, set with black bristles, the distal scopula reddish brown. Coxae and legs yellowish brown, clothed with inconspicuous pale hairs, set with black spines, the metatarsal and tarsal scopulae darker. Abdomen gray above, with a narrow median longitudinal dark line in the basal half and dusky chevrons behind, the sides and the venter gray.

Carapace much longer than broad, narrowed and very gently rounded in front, subtruncate; as seen from the side gently declining forward and caudad from a point in front of the short linear median groove. First row of eyes in a straight line, the round medians separated by two-thirds their diameter, scarcely as far from the subequal oval laterals. Clypeus equal in height to two-thirds the diameter of an anterior median eye. Second row of eyes broader than the first (21/27), very weakly procurved, the medians separated by two diameters, as far from the subequal laterals. Median ocular quadrangle broader than long (6/5), narrowed in front in the same ratio. Sternum much longer than broad, truncated in front, the first coxae separated by scarcely their length, the sides gently rounded, bluntly produced behind, the posterior coxae only slightly separated. Labium longer than broad, the sides subparallel. Maxillae rounded and enlarged distally. Chelicera robust, geniculate in front, the upper margin with a long carina and three teeth, the inner one very much larger, the lower margin with four teeth, the inner one smaller than the others.

First leg: femur, 3.75 mm., patella, 2.05 mm., tibia, 3.25 mm., metatarsus, 2.75 mm., and tarsus, 1.50 mm. Fourth leg: femur, 4.30 mm., patella, 2.00 mm., tibia, 3.75 mm., metatarsus, 5.00 mm., and tarsus, 1.40 mm. All

tibiae unarmed above, the first tibia without laterals but with 2–2–0 ventral spines, the first metatarsus unarmed except for one basal pair beneath. Fourth tibiae and metatarsi with 2–2–2 ventral spines. All tarsi scopulate. First and second metatarsi thickly scopulate beneath, the tibiae of these legs thinly scopulate distally. Third and fourth metatarsi with scopular hairs in the distal portion of the joints.

Epigynum as illustrated in figure 3, distinct from its nearest relative, *tigrina*, in having the lobe or process of the epigynum much broader and more rounded.

TYPE LOCALITY.—Female holotype from Hamilton, Ravalli County, Montana, April 1, 1936.

Micaria hesperella, new name

Micaria constricta EMERTON, 1894, Trans. Connecticut Acad. Arts and Sci., IX, p. 414, Pl. II, fig. 5. (Name preoccupied by *Micaria constricta* L. Koch, 1876.)

RAVALLI COUNTY: Burch Creek, April 8, 1934, young female possibly this species.

Castianeira descripta (Hentz)

Herpyllus descriptus HENTZ, 1847, Journ. Boston Soc. Nat. Hist., V, p. 456, Pl. XXIV, fig. 7.

RAVALLI COUNTY: Blodgett Canyon, Aug. 20, 1933, female. Hamilton, Aug. 8, 1933, female.

Castianeira amoena (C. Koch)

Corinna amoena C. KOCH, 1842, Die Arachniden, IX, p. 21, Pl. CCXCIV, fig. 705.

RAVALLI COUNTY: Hamilton, May 20, 1934, male, immature female; May 24, 1934, male. Willow Creek Ridge, June 26, 1935, female.

Castianeira longipalpus (Hentz)

Herpyllus longipalpus HENTZ, 1847, Journ. Boston Soc. Nat. Hist., V, p. 457, Pl. XXIV, fig. 9.

RAVALLI COUNTY: October, 1934, female.

Anyphaenidae

Anyphaena pacifica (Banks)

Gayenna pacifica BANKS, 1893, Trans. American Ent. Soc., XXIII, p. 63.

RAVALLI COUNTY: Hamilton, April 6, 1934, young female; August, 1934, male.—FLATHEAD COUNTY: LaSalle, March, 1934, young male (Charles Jellison, Jr.).

Salticidae

Salticus scenicus (Linnaeus)

Aranea scenica LINNAEUS, 1758, Syst. Nat., 10 Ed., I, p. 623.

RAVALLI COUNTY: Hamilton, Sept. 1, 1933, two young females; Feb. 13, 1934, female; March 8, 1934, females, young males; March 10, 1934, female; May 7, 1934, two males; May 26, 1934, female (G. M. Kohls). Gird's Creek, April 19, 1934, female.

Marpissa californica (Peckham)

Marptusa californica PECKHAM, 1888, Trans. Wisconsin Acad. Sci., VII, p. 81, Pl. I, fig. 61; Pl. V, fig. 61; Pl. VI, fig. 61.

RAVALLI COUNTY: June, 1934, female (Claire Ertel).

Icius similis Banks

Icius similis BANKS, 1895, Canadian Entomologist, XXVIII, p. 100.

RAVALLI COUNTY: Moose Lake, March 25, 1934, young female.

Phidippus purpuratus Keyserling

Phidippus purpuratus KEYSERLING, 1884, Verh., Zool.-Bot. Gesell. Wien, XXXIV, p. 489, Pl. XIII, fig. 1.

RAVALLI COUNTY: Willow Creek Ridge, June 26, 1935, female.

Phidippus altanus Gertsch

Phidippus altanus GERTSCH, 1934, American Mus. Novitates, No. 726, p. 12, Fig. 13.

RAVALLI COUNTY: Camas Creek, July 9, 1932, male. Hamilton, May 25, 1932, female. Moose Lake, March 25, 1934, two young females.

Phidippus opifex (McCook)

Attus opifex McCook, 1883, Proc. Acad. Nat. Sci. Philadelphia, p. 276.

JEFFERSON COUNTY: Whitehall, 1936. female.

Phidippus tyrelli Peckham

Phidippus tyrellii, PECKHAM, 1900, Trans. Wisconsin Acad. Sci., XIII, p. 296, Pl. XXIV, fig. 4.

RAVALLI COUNTY: Gird's Creek, Jan. 28, 1934, three females.

Phidippus johnsoni (Peckham)

Attus johnsoni PECKHAM, 1883, Descrip. new or l. k. Att., p. 22, Pl. II, fig. 17.

RAVALLI COUNTY: Harlan Ridge, March 14, 1934, young female. Skalkaho Canyon, March 10, 1934, four females. Blodgett Mountain, April 21, 1934, male and female. Moose Lake, May 6, 1934, two males. University Heights, April 23, 1934, male.

Paraphidippus marginatus (Walckenaer)

Attus marginatus WALCKENAER, 1837, Ins. Apt., I, p. 466.

RAVALLI COUNTY: Camp Creek, July 3, 1933, two females. Roaring Lion Creek, May 6, 1934, female. Lake Como, Aug. 4, 1934, young female. Moose Lake, May 27, 1934, male. Gird's Creek, Aug. 26, 1934, four females.

Dendryphantes montanus Emerton

Dendryphantes montanus EMERTON, 1891, Trans. Connecticut Acad. Arts and Sci., VIII, p. 229, Pl. XVII, fig 3.

RAVALLI COUNTY: May, 1934, female. Hamilton, Feb. 3, 1934, female. Moose Lake, Aug. 9, 1934, two females. Blodgett Mountain, Aug. 14,1934, two young females.

Pellenes hirsutus (Peckham)

Habrocestum hirsutum PECKHAM, 1888, Trans. Wisconsin Acad. Sci., VII, p. 64, Pl. IV, fig. 47.

RAVALLI COUNTY: Canyon Creek, May 7, 1934, male.

Pellenes laggani Peckham

Pellenes laggani PECKHAM, 1909, Trans. Wisconsin Acad. Sci., XVI, p. 560, Pl. XLIX, fig. 2.

RAVALLI COUNTY: Hamilton, June, 1930, male.

Pellenes americanus (Keyserling)

Ephippus americanus KEYSERLING, 1884, Verh. Zool.-Bot. Gesell. Wien, XXXIV, p. 506, Pl. XIII, fig. 13.

RAVALLI COUNTY: Moose Lake, March 25, 1934, three young females; May 27, 1934 male. May, 1934, male.

Pellenes philipi, new species

Figures 1 and 2

MALE.—Total length, 5.60 mm.

	Length	Width
CARAPACE	2.85 mm.	2.20 mm.
FRONT	0.80	1.70
STERNUM	1.20	0.85
LABIUM	0.40	0.30
MAXILLA	0.60	0.40
ABDOMEN	2.75	2.00

Color pattern and structure essentially as in *Pellenes calcaratus* Banks. Integument of the carapace yellowish brown, the sides with a broad brown marginal band, the posterior declivity with a triangular brown maculation which begins at the median groove and expands behind to the posterior margin; the ocular region and clypeus black. Clothing of the carapace white or black scales on the light and dark markings respectively, the pars cephalica very thickly set with dark brown procumbent hairs with which are interspersed long pale erect bristles most numerous in front, some of them projecting over the first eye row. Sternum dusky yellow, with a narrow black marginal seam. Chelicerae black, the labium and maxillae black except at the ends. Clothing of the underside pale hairs. Integument of the coxae and legs pale yellow to yellowish brown. First leg: femur dusky above, clothed with black hairs which are thicker and longer on the prolateral surface, the ventral surface pale yellow, with a thick brush of long white hairs; patella and tibia dusky above, less thickly set with black hairs, pale yellow beneath and with a thin fringe of white hairs; metatarsus and tarsus pale yellow, with a thin covering of pale hairs, the distal end of the tarsus and tarsal scopula black. Second leg as the first but without conspicuous fringes of hairs. Third leg: femur dusky brown on all surfaces, darker than in the front legs, evenly clothed with black hairs and with rows of light scales above and on the prolateral surface; patella about twice as long as broad, modified almost exactly as in *calcaratus* but the spur which originates on the distal prolateral surface relatively short; tibia dusky yellow, with a faint black longitudinal stripe on the prolateral surface; metatarsus dusky, the tarsus paler, clothed with black hairs, the claw tuft black. Fourth leg as third but the patella normal. Basal joints of palpus brown with dark hairs, the tarsus lighter, clothed above with white hairs. Abdomen mainly black above, with an irregular median longitudinal pale band and pale side stripes which join to form an indistinct stripe around the base of the abdomen. Venter of abdomen paler.

Structure of the carapace closely approximating *Pellenes calcaratus* Banks and *P. coronatus* (Hentz). Clypeus equal in height to about one-half the diameter of an anterior median eye. First row of eyes recurved, the upper

edges forming a straight line, the large medians slightly separated, twice as far from the much smaller laterals. Small eyes of second row nearer the third eye row. Third eye row as broad as the first. Dorsal eye quadrangle broader than long (75/50), occupying five-thirteenths of the total length of the carapace.

First leg: femur, 1.60 mm., patella, 0.95 mm., tibia, 1.20 mm., metatarsus, 0.83 mm., and tarsus, 0.60 mm. First tibia with three pairs of ventral spines, the three on the prolateral side spatuliform and sublateral in position. Palpus as illustrated in figures 1 and 2, agreeing closely in structure with that of *calcaratus*.

TYPE LOCALITY.—Male holotype from Mullan Pass, Mineral County, Montana, June 16, 1934 (C. B. Philip). Male paratype from West Fork, Ravalli County, Montana, June 10, 1934 (W. L. Jellison).

This new form is closely related to *Pellenes calcaratus* Banks but is a larger species, has three spatulate spines on the first tibia and has a shorter terminal spur on the modified patella of the third leg.

Evarcha hoyi (Peckham)

Attus hoyi PECKHAM, 1883, Descr. New or Little Known Att. U. S., p. 7, Fig. 5 (male).

RAVALLI COUNTY: Trappers Peak, July 14, 1933, male, female. Medicine Springs, June 25, 1933, male, young female. Canyon Creek, May 23, 1934, young male (C. B. Philip). Blodgett Mountain, April 21, 1934, male. Gird's Creek, Aug. 26, 1934, male, female and young male. Roaring Lion Creek, June 23, 1935, young male.—FLATHEAD COUNTY: September, 1933, female.